Amendments to the Specification:

Please replace line 1-15, page 15 of the specification to read:

The MAC-data signal is correlated by the correlate function 92. Thereafter, the

correlated MAC-data signal is applied to a fast hadamard transform element 94 at which

determination is made of all possible active users. Determinations made thereat are provided by

way of the line 126 to a threshold calculation element 128 at which the output generated on the

line 126 is compared with the pilot signal, here provided by way of the line ~~132~~ 130, to

determine the number of active users, or the number of users with signals transmitted thereto

with energy levels above the threshold. A number N of active users is selected, indicated by the

block 132. And, then, MAC bit processing is performed, indicated by the elements 136, on each

MAC-data bit in manners analogous to those described with respect to operation of the MAC bit

processor 88, shown in Figure 2. And, summations are performed by the summing elements

138, leaving the weighted channel estimate for each active user. The resultant summation is

provided to the filter 78 to be combined with the pilot estimate generated on the line 76, and the

channel phase estimate is generated on the line 118 responsive thereto. The following is a

mathematical analysis of operation of the channel phase estimator.